



**Clean Version of Amended Claims**  
**Pursuant to 37 C.F.R. § 1.121(c)(1)(ii)**

6. A method for site-directed mutagenesis of a nucleic acid molecule comprising the steps of :

a) hybridizing a mutagenic oligonucleotide to a target region of a double-stranded nucleic acid molecule, wherein the mutagenic oligonucleotide comprises a mutagen incorporated into a single-stranded nucleic acid that forms a triple-stranded nucleic acid molecule with the target region; and

b) mutating the double-stranded nucleic acid molecule.

7. The method of claim 6 comprising the additional step of activating the mutagen prior to the mutation step.

8. The method of claim 6 wherein the mutagen is selected from the group consisting of psoralen and acridine orange and is activated by light.

9. The method of claim 6 wherein the mutagen is selected from the group consisting of acridine orange, an alkylating agent, a cis-platinum analog, a hematoporphyrin, a hematoporphyrin derivative, mitomycin C, a radionuclide, and a molecule that interacts with radiation to become mutagenic.

10. The method of claim 6 wherein the mutation alters the activity of the double-stranded nucleic acid molecule.

11. The method of claim 6 wherein the double-stranded nucleic acid molecule is a gene.

12. The method of claim 6 wherein the gene is an oncogene.

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**CLEAN VERSION OF AMENDMENTS PURSUANT TO 37 C.F.R. § 1.121**

13. The method of claim 6 wherein the gene is a defective gene.
14. The method of claim 6 wherein the double-stranded nucleic acid molecule is all or a portion of a viral genome.